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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/848,503	05/04/2001	Myung-sik Yim	Q64255	7564

7590 09/07/2005

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EXAMINER	
USTARIS, JOSEPH G	
ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/848,503	YIM ET AL.	
	Examiner	Art Unit	
	Joseph G. Ustaris	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☒ Claim(s) *10* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 May 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date [illegible].
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statements (IDS) were submitted on 20 September 2004, 23 February 2005, and 08 August 2005. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Objections

2. Claim 10 is objected to because of the following informalities: Claim 10 recites "one of the connectors the backplane" on line 7 of claim 10. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 11 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 11, the claim recites "receiving at the extension board an operation command transmitted to the extension board in the form of a menu" on lines 3-4 of claim 11. It is unclear how the extension board receives a menu. The specification recites that menus are transmitted from the extension board to the main board (See specification page 8 line 22 – page 9 line 6). Therefore, for examination purposes, the examiner will read claim 11 as --receiving at the main board an operation command transmitted from the extension board in the form of a menu--.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5, 7, 9, and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Chimoto et al. (US005838383A).

Regarding claim 1, Chimoto et al. (Chimoto) discloses a "multimedia device in a multimedia system" (See Fig. 1). The receiver has a "backplane" that has a bus and multiple module receptacles or "plurality of connectors", where each module receptacle uses a "predetermined signal standard" in order successfully communicate over the bus

(See Fig. 1; column 7 lines 61-67 and column 10 lines 54-63). The receiver can accept multiple modules or "extension boards", where a module is "electrically coupled to a first one of the connectors for transmitting an MPEG transport stream" (See Fig. 1, modules 303-306; column 8 lines 1-26), and where each module would have the necessary components or "independent module" to process the steam when the module is selected (See column 8 lines 55-67 and column 9 lines 21-34). The receiver also includes a "main board unit" that has a CPU, memory, controllers, and a back-end processor (See Fig. 1, 313, 314, 309, and 311). The "main board unit" is incorporated into the "backplane" and is connected to all the module receptacles or "electrically coupled to a second one of the connectors" (See Fig. 1) via the bus. The back-end processor of the "main board unit" processes the MPEG transport stream transmitted by the extension board into a predetermined signal form (See column 9 lines 51-62 and column 10 lines 23-34) and the CPU selects the appropriate module or "extension board" (See column 8 lines 55-67, column 9 lines 21-34, and column 9 line 63 – column 10 lines 8).

Claim 2 contains the limitations of claim 1 (wherein the "main board unit" and "backplane" form a "combination main board unit" as a single unit (See Fig. 1)) and is analyzed as previously discussed with respect to that claim. Furthermore, the modules or "extension board" are attachable to any one of the receptacles and separately from the combination main board (See column 10 lines 54-63).

Regarding claim 3, each of the receptacles inherently have a "transmission signal line" in order to receive commands from the "main board" to the "extension board" (See

column 7 lines 61-67 and column 8 lines 55-67), an "MPEG transport stream line" to transport the MPEG stream from modules 304-306 to module 307 and 308 (See Fig. 1), and an "analog audio/video signal line" in order to successfully receive analog signals into the system (See Fig. 1. 303; column 8 lines 1-25). Furthermore, the bus also serves as the "selection signal line" where it can transmit current parameters to the selected modules (See column 7 lines 61-67, column 8 lines 55-67, and column 9 lines 21-34).

Regarding claim 5, the modules or "extension boards" have a "module unit" for transmitting a transport stream to the "backplane", when the CPU selects that particular "extension board", in order to successfully deliver the stream to other modules within the receiver (See Fig. 1; column 7 lines 61-67).

Regarding claim 7, the modules or "extension board" has a "module unit" as discussed in claim 5 above. Furthermore, the modules (See Fig. 1, 303-306) or "extension boards" have an "extended control unit" that will receive the commands from the CPU, execute the commands, and control the "module unit" to transmit the stream on to the bus of the receiver (See Fig. 1; column 7 lines 61-67 and column 8 lines 1-26). The modules inherently have memory that stores a program that is executed by the module in order to successfully perform its functions (See Fig. 1, modules 303-308).

Regarding claim 9, inherently when the CPU does not select the module, the module does not transmit a transport stream on to the bus (See column 7 lines 61-67, column 8 lines 55-67, and column 9 lines 21-34).

Claim 12 contains the limitations of claim 1 and is analyzed as previously discussed with respect to that claim.

Claim 13 contains the limitations of claims 3 and 12 and is analyzed as previously discussed with respect to those claims.

Claim 14 contains the limitations of claims 1 and 7 (wherein the modules extends functions different from the functions on the main board (See Fig. 1)) and is analyzed as previously discussed with respect to those claims. Furthermore, each of the module (See Fig. 1, 303-306) have "module units" that drive a "function extension module" in order to successfully receive a signal and provide a transport stream to the bus (See Fig. 1; column 8 lines 1-26 and column 9 lines 34-50). Each module inherently has a "connector unit" that connects the "module unit" to the "extended control unit" in order for the module or "extension board" to operate correctly.

Claim 10 is rejected under 35 U.S.C. 102(e) as being anticipated by Trovato et al. (US006469742B1).

Trovato et al. (Trovato) discloses a "method for extending functions of a multimedia device having a backplane, a main board, and at least one extension board electrically coupled to the backplane" (See Fig. 1). The system is able to "determine whether the extension board is electrically coupled to one of the plurality of connectors of the backplane by sequentially scanning the connectors (See Fig. 1; column 4 lines 29-61). If a module is connected, the system is able to "analyze characteristics of the extension board" (See column 4 lines 20-26), wherein the CPU reads and loads the device drivers and protocols to order to successfully interface with the CPU. The system would use the module to "perform functions according to the characteristics" and

"display a signal corresponding to the function of the extension board" (See column 4 lines 6-61). For example, if the module is a video signal processing unit or a graphic processor, then the system will utilize the module's functions and display the video or graphics on the display or screen (See Fig. 1).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chimoto et al. (US005838383A).

Claim 4 contains the limitations of claims 1 or 2 and is analyzed as previously discussed with respect to those claims. Furthermore, Chimoto discloses a "MPEG transport stream decoder for decoding the MPEG transport stream into an MPEG video bit stream and an audio bit stream" (See Fig. 1, module 305; column 8 lines 1-26), an "MPEG video decoder for decoding the MPEG video bit stream" (See Fig. 1, module 307), an "audio decoder for decoding the audio bit stream" (See Fig. 1, module 308), and a CPU or "control unit" for selecting one of the modules or "extension boards", operating the MPEG TS decoder, the audio decoder, and the MPEG video decoder, and selectively outputting a multimedia signal (See Fig. 1, CPU; column 7 lines 61-67, column 8 lines 55-67, and column 9 lines 21-34). However, Chimoto does not explicitly

disclose that the MPEG video decoder and the audio decoder provide an analog video and audio signal.

Official Notice is taken that it is well known for MPEG video decoders and audio decoders to produce analog video and audio signals. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the MPEG video decoder and audio decoder disclosed by Chimoto to be able to produce an analog video and audio signal in order to increase the capabilities of the system thereby making the system compatible with older system based on analog schemes.

Claims 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chimoto et al. (US005838383A) in view of Trovato et al. (US006469742B1).

Claim 6 contains the limitations of claims 1 or 2 and is analyzed as previously discussed with respect to those claims. Furthermore, the modules or "extension boards" have a "module unit" for transmitting a transport stream to the "backplane", when the CPU selects that particular "extension board", in order to successfully deliver the stream to other modules within the receiver (See Fig. 1; column 7 lines 61-67). However, Chimoto does not disclose a memory storing a program to be executed by the main board.

Trovato et al. (Trovato) discloses electronic devices with adaptable upgrade capability. Trovato discloses that the modules include memory that stores device drivers and protocols that is used by the CPU to interface the module with the CPU or "memory

storing a program to be executed by the main board" (See Fig. 1; column 4 lines 20-26). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the modules disclosed by Chimoto to have a memory that stores a program to be executed by the main board, as taught by Trovato, in order to make the upgrade process easier for the user thereby requiring less interaction from the user during the upgrade process.

Regarding claim 9, inherently when the CPU does not select the module, the module does not transmit a transport stream on to the bus (See Chimoto column 7 lines 61-67, column 8 lines 55-67, and column 9 lines 21-34).

Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chimoto et al. (US005838383A) in view of Battini et al. (US006919792B1).

Claim 8 contains the limitations of claim 7 and is analyzed as previously discussed with respect to that claim. However, Chimoto does not disclose that the "extended control unit transmits menu items in the form of an HTML document to the main board to display the menu items on a screen, and if a menu item displayed is selected by the main board, the extended control unit executes a command corresponding to the selected menu item.

Battini et al. (Battini) discloses a system for controlling various components in a system. Battini discloses that a device sends a set of HTML pages to a control unit that is used to control the device. The control unit displays the HTML pages. The HTML pages can display various information and control parameters or "menu items" (See

column 3 line 60 – column 4 line 29). The user can use the HTML web pages to issue commands (e.g. change volume setting) and the command is sent to the device to execute the command (See column 3 line 60 – column 4 line 29 and column 6 lines 9-25). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the modules and CPU disclosed by Chimoto to be able to transmits menu items in the form of an HTML document to the main board to display the menu items on a screen, and if a menu item displayed is selected by the main board, the extended control unit executes a command corresponding to the selected menu item, as taught by Battini, in order to provide a more efficient means of controlling devices by using a well known and established language.

Claim 15 contains the limitations of claims 8 and 14 and is analyzed as previously discussed with respect to those claims.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Trovato et al. (US006469742B1) in view of Battini et al. (US006919792B1).

Claim 11 contains the limitations of claim 10 and is analyzed as previously discussed with respect to that claim. However, Trovato does not disclose that the main board receives an operation command transmitted from the extension board in the form of a menu and displaying the received menu on the screen by a web browser, and performing a command corresponding to the displayed menu.

Battini et al. (Battini) discloses a system for controlling various components in a system. Battini discloses that a device sends a set of HTML pages to a control unit that

is used to control the device. The control unit, which serves as a "web browser", displays the HTML pages. The HTML pages can display various information and control parameters or "menu items" (See column 3 line 60 – column 4 line 29). The user can use the HTML web pages to issue commands (e.g. change volume setting) and the command is sent to the device to execute the command (See column 3 line 60 – column 4 line 29 and column 6 lines 9-25). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the modules and CPU disclosed by Chimoto to have the main board receive an operation command transmitted from the extension board in the form of a menu and displaying the received menu on the screen by a web browser, and performing a command corresponding to the displayed menu, as taught by Battini, in order to provide a more efficient means of controlling devices thereby making the system more convenient to the user.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please take note of Nakamura et al. (EP1146736A1) for their similar method of providing extension functions in multimedia devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph G. Ustaris whose telephone number is 571-272-7383. The examiner can normally be reached on M-F 7:30-5PM; Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JGU
August 31, 2005

VIVEK SRIVASTAVA
PRIMARY EXAMINER